## **Listing of Claims:**

1. (Currently amended) A process for improving efficiency of a DNA amplification reaction, wherein a method for amplifying a target DNA fragment comprising:

providing a PCR primer, in which that comprises a compound at the 5' terminus, said compound selected from a group consisting of LC-Red 705, an amino group, a phosphate group, biotin, DIG, DNP, TAMRA, Texas-Red, ROX, XRITC, rhodamine, LC-Red 640, a mercapto group, psoralen, cholesterol, FITC, 6-FAM, TET, cy3, cy5, BODIPY 564/570, BODIPY 500/510, BODIPY 530/550, BODIPY 581/591 and oligonucleotide with a combined G and C content of at least 25% and with at least four bases is added to a 5' terminus, is used as a primer; and

amplifying said target DNA fragment via PCR using said PCR primer.

Claims 2-3(canceled)

- 4. (Currently amended) A <u>The method process for improving efficiency of a DNA amplification</u> reaction according to claim <u>1</u>3, wherein said PCR is either one of asymmetric PCR and degenerate PCR.
- 5. (Currently amended) A <u>method for hybridizing process for improving hybridization specificity</u> of an oligonucleotide to a DNA <u>comprising</u>: <del>wherein</del>

providing an oligonucleotide in which a compound selected from a group consisting of LC-Red 705, an amino group, a phosphate group, biotin, DIG, DNP, TAMRA, Texas-Red, ROX, XRITC, rhodamine, LC-Red 640, a mercapto group, psoralen, cholesterol, FITC, 6-FAM, TET, cy3, cy5, BODIPY 564/570, BODIPY 500/510, BODIPY 530/550 and BODIPY 581/591 is conjugated to a 5' terminus of said oligonucleotide is used for hybridizing to said DNA; and hybridizing said oligonucleotide to said DNA.

6. (New) A method for amplifying a target DNA fragment comprising:

providing a PCR primer that comprises an oligonucleotide added to a 5' terminus of said PCR primer; and

amplifying said target DNA fragment via PCR using said PCR primer; wherein said oligonucleotide has at least four bases and a combined G and C content of at least 50%, and said at least four bases are non-specific to the sequence of said target DNA fragment to be amplified.

- 7. (New) The method according to claim 6, wherein said oligonucleotide comprises no more than 40 bases, and has a quantity of a more numerous base of G and C that accounts for at least 50% of said combined G and C content, and a quantity of a more numerous base of A and T that accounts for at least 50% of a combined content of A and T.
- 8. (New) The method according to claim 6, wherein said PCR is either one of asymmetric PCR and degenerate PCR.
- 9. (New) A method for amplifying a target DNA fragment comprising: providing a PCR primer that comprises biotin at the 5' terminus; and amplifying said target DNA fragment via PCR using the PCR primer; wherein said PCR is either one of asymmetric PCR and degenerate PCR.

hybridizing said oligonucleotide to said DNA.

- 10. (New) A method for hybridizing an oligonucleotide to a DNA comprising: providing an oligonucleotide in which biotin is conjugated to a 5' terminus via a linker; and
- 11. (New) The method according to claim 10, wherein said linker is a hydrocarbon group of 2 to 16 carbon atoms.